

WHAT IS CLAIMED IS:

Sub 1) 1. An intrinsically safe portable device for configuring the operation of electronic process control equipment, said electronic process control equipment having a wireless communication receiver, said device comprising:

- (a) an enclosure;
- (b) an electronic circuit mounted in said enclosure;
- (c) a keypad coupled to said electronic circuit;
- (d) a wireless transmitter responsive to said electronic circuit and operative to transmit control signals to the wireless communication receiver on the electronic process control equipment for controlling the operation of the electronic process control equipment;
- (e) said electronic circuit including a low voltage power supply and a low power microcontroller for operating at a low voltage level to eliminate the incidence of sparking.

2. The intrinsically safe portable device as claimed in claim 1, wherein said electronic circuit is encased in an epoxy inside of said enclosure, said epoxy providing a barrier against sparking in the electronic circuitry.

3. The intrinsically safe portable device as claimed in claim 2, wherein said enclosure is formed from general polymers polystyrene having a maximum surface resistivity of $5,000E+03$ Ohms.

4. The intrinsically safe portable device as claimed in claim 1, wherein said wireless transmitter comprises an infrared transmitter.

5. The intrinsically safe portable device as claimed in claim 4, wherein said electronic circuit operates at a nominal voltage of 3 volts, and said low voltage power supply comprises a single cell lithium battery.

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